Texas Education Agency

English Mathematics, Algebra II

Bluebonnet Learning Secondary Mathematics Algebra II

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Full-Subject, Tier-1	**9781970198850**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	ELPS SCORE	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	100%	20	Flags Addressed	Flags in Report	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	28 out of 28	100%
2. Progress Monitoring	26 out of 26	100%
3. Supports for All Learners	27 out of 27	100%
4. Depth and Coherence of Key Concepts	19 out of 19	100%
5. Balance of Conceptual and Procedural Understanding	41 out of 41	100%
6. Productive Struggle	22 out of 22	100%

Breakdown by Suitability Noncompliance and Excellence Categories

SUITABILITY NONCOMPLIANCE FLAGS BY CATEGORY	IMRA REVIEWERS	PUBLIC	Flags NOT Addressed by November Vote
1. Prohibition on Common Core	1	0	0
2. Alignment with Public Education's Constitutional Goal	0	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	0	0	0
5. Protecting Children's Innocence	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0	0	0

SUITABILITY EXCELLENCE FLAGS BY CATEGORY	IMRA REVIEWERS
Category 2: Alignment with Public Education's Constitutional Goal	7
Category 6: Promoting Sexual Risk Avoidance	0

IMRA Quality Report

1. Intentional Instructional Design

Materials support educators in effective implementation through intentional course and lesson-level design.

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	4/4
1.1b	All criteria for guidance met.	2/2
1.1c	All criteria for guidance met.	2/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	12/12

1.1a – Materials include a scope and sequence outlining the TEKS, ELPS, and concepts taught in the course.

In the "Course-Level Documents" under the "Scope and Sequence" tab, there are two scope and sequences, one for 150 days and one for 165 days. Each scope and sequence indicates "1 day pacing = 45-minute session."

Each scope and sequence identifies the modules, the topics within each module, the lessons included in each topic, a summary of each lesson, and the essential ideas for each lesson. For each topic, there is a list of the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS) covered in the topic. The scope and sequence includes the TEKS for each lesson and the recommended number of days for each lesson.

The "Course-Level Documents" include a "TEKS Summary and an ELPS Summary"; each provides an overview of their location within each module, topic, and lesson for each specific TEKS and/or ELPS requirement.

1.1b – Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210).

Each "Scope and Sequence" document breaks down each topic within a module into a number of lessons. For each lesson, the document provides a lesson summary along with the essential ideas of the lesson, the TEKS associated with the lesson, and the recommended pacing for the lesson. At the completion of each topic, the scope and sequence indicates the number of pacing days recommended for individual learning with skills practice and a day for an assessment.

In the "Course-Level Documents" under the "Year-at-a-Glance" tab, there are two pacing guides, one for 150 days and one for 165 days. Both pacing documents state "1-day pacing = 45-minute session." On each pacing document, each topic is assigned a number of days for pacing and the TEKS covered in the topic. Suggested pacing includes days for "End of Topic Assessments" and learning individually.

The materials include a "Year-At-A-Glance" document that includes the number of recommended pacing days. This information is consolidated at the topic level without specific lesson detail. The "Year-At-A-Glance" identifies the TEKS covered in each topic. The ELPS are included in a separate "ELPS Summary" document that ties each ELPS to a specific lesson within a topic and module. The ELPS are not included in the "Year-At-A-Glance" document.

1.1c – Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.

The "Program-Level Resources" provide a "Content Organization Document" written in English and Spanish. The document details the logical sequence and connections of concepts presented as early as grade 6 through Algebra II and Geometry. It uses icons as visual aids to show the connections between grades and courses. Within each course module, there is a rationale that explains the benefits of the sequence of topics and highlights the connections between concepts presented throughout the course.

The "Content Organization Document" includes the topics taught in each module and how those topics will be needed in later modules. For example, in Module 1, Topic 2, the document explains that the students will use their knowledge of systems of equations covered in the previous module (1) to write a quadratic equation given any three points.

1.1d – Materials include protocols with corresponding guidance for unit and lesson internalization.

The "Program-Level Resources" includes "Module and Topic Internalization Protocol for Teachers," which provides a step-by-step process for understanding each module and topic prior to teaching, including what students will learn, how teachers will assess student learning, and the high-level arc of learning. By starting with the module and topic internalization, teachers can understand how each lesson fits into the big picture prior to using the "Lesson Internalization Protocol for Teachers."

The "Lesson Internalization Protocol for Teachers" provides a step-by-step process for understanding each lesson before teaching, including what students will learn, how students are assessed, and how teachers can support all learners in meeting the rigor of the instructional materials.

1.1e – Materials include resources and guidance for instructional leaders to support teachers with implementing the materials as designed.

The materials include resources for instructional leaders, which can be found under the "Program-Level Resources" tab. There are three resource protocols for instructional leaders (coaches) to support teachers with implementing the materials as designed: "Module and Topic Internalization Protocol for Coaches," "Lesson Internalization Protocol for Coaches," and "Student Work Analysis Protocol for Coaches."

The "Module and Topic Internalization Protocol for Coaches" outlines a four-step process designed for coaches to assist teachers in exploring or examining the consistency of concepts throughout the topics within a module. Revisiting this protocol at the start of each new topic within a module serves as a reminder for teachers about the relationships and coherence between the various topics in the module.

The "Lesson Internalization Protocol for Coaches" outlines a four-step method for coaches to assist teachers, either individually or in groups, in utilizing best practices for effective lesson delivery. Each step includes suggested timing, objectives, implementation strategies, and opportunities for deeper exploration.

The "Student Work Analysis Protocol for Coaches" presents a six-step plan for coaches to assist teachers in implementing focused strategies that enhance students' skill and knowledge development for future lessons.

1.2 Unit-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	2/2
1.2b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

1.2a – Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

The *Teacher Edition* includes a comprehensive "Module Overview" and the associated TEKS at the beginning of each module or topic. In order to effectively teach the concepts, the "Module Overview" provides a sequential ordering of the associated topics along with the recommended number of "Learning Together" and "Learning Individually" sessions. At the end of each Module Overview, there is a recommended assessment summary that identifies the specific TEKS covered in each topic.

The *Teacher Edition* includes the rationale for the name of the module and provides a detailed list of objectives for each topic. The "Module Overview" found in the *Teacher Edition* makes connections to prior learning to provide background content knowledge. The "Topic Overview" includes key terms and their definitions. A complete list of all terms is provided in the "Glossary."

1.2b – Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

The "Course-Level Documents" include "Family Guides" in Spanish and English. The "Family Guide" includes a "Family Letter" that introduces the resources available to support their student. The resources include: "Course Family Guide," "Topic Family Guides," "Topic Summaries," and "Math Glossary."

The "Family Guide" will walk the family through the research-based instructional approach, how the course is structured, how the mathematics applies to the real world, using "Talking Points" from the "Topic Family Guide," and using the TEKS mathematical process standards in order to support the progress of their student child.

The "Family Guide" includes a detailed summary of what their child will learn in each topic/lesson within the modules (units) with connections to concepts of the real world to enhance family discussions that will support the progress of their student child.

1.3 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.3a	All criteria for guidance met.	8/8
1.3b	All criteria for guidance met.	3/3
1.3c	All criteria for guidance met.	1/1
—	**TOTAL**	12/12

1.3a – Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson (aligned with the TEKS and the ELPS).

In the *Teacher Edition*, each lesson in each topic has a lesson overview. Each lesson overview includes a list of materials, the TEKS and ELPS covered in the lesson, as well as a set of essential ideas for the lesson. Following this is a detailed lesson plan with facilitation notes, differentiation strategies, and questions to support discourse.

Each lesson overview includes a list of materials needed, lesson overview, standards, and a recommended time allotment to "Engage," "Develop," and "Demonstrate" the lesson objectives. The pacing recommendations include activities to promote student engagement and discussion. At the end of each activity, there is a designated "Stamp the Learning" prompt to inform teachers of the important takeaways for each activity and lesson.

1.3b – Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson, and the suggested timing for each lesson component.

The lesson overview found in the *Teacher Edition* includes a list of materials needed, both for the student and teacher, as well as the amount of time needed at the beginning of each lesson in an overview. There is also a specific lesson structure and pacing recommendation for each student activity to effectively deliver the lesson.

The *Teacher Edition* provides facilitation notes, common misconceptions, questions to support discourse, and differentiation strategies in the lesson overview along with timing suggestions for each activity and ways to engage all students.

1.3c – Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

The *Teacher Edition* includes an outline and guidance for teachers to be able to assign practice problems in each topic, as well as extensions for each lesson. There are multiple types of problems to assign to students as well as the TEKS covered in each problem set. Guidance is given for selective use of the "problem sets to be used as a diagnostic tool throughout the course to identify each student's proficiency level with the TEKS to make data-driven instructional decisions."

The *Skills Practice Teacher Edition* includes guidance for teachers to use the "Extension" sections of the skills practice "for students who have demonstrated proficiency in grade-level content and skills and are ready for a challenge" and the "Spaced Practice" sections for retrieving and reviewing skills when students simply need extended practice.

2. Progress Monitoring

Materials support educators in effective implementation through frequent, strategic opportunities to monitor and respond to student progress.

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	9/9
2.1b	All criteria for guidance met.	2/2
2.1c	All criteria for guidance met.	2/2
2.1d	All criteria for guidance met.	6/6
2.1e	All criteria for guidance met.	2/2
—	**TOTAL**	21/21

2.1a – Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.

The materials contain an *Assessments Teacher Edition*, which provides a bank of "End of Topic Assessments" along with guidance on how to integrate them into instruction effectively. These assessments come in diverse formats, featuring different types of tasks and questions. "End of Topic Assessments are provided to measure student performance on a clearly denoted set of standards."

The materials include formative and summative assessments that vary in type, such as discussion questions, independent practice, problem-based tasks, and performance-based assessments. The assessments include a variety of questions and task types throughout each lesson and at the end of each topic within a unit (module). For example, "there are three problem types students will encounter on an End-of Topic Assessment: multiple-choice, multiselect, and open-response questions."

The materials include diagnostic assessment opportunities through the use of formative assessments throughout the unit's topics and lessons. For example, before starting a subsequent lesson, students are tasked with a "Talk the Talk" exercise. Teachers can use student responses to determine if and when to schedule individual learning days. Another example is a "Prepare" assignment at the end of a lesson, before the next lesson, to help educators monitor progress, identify learning gaps, and tailor instruction to individual or group needs. There is also a "Spaced Practice" section within the *Skills Practice* materials, which "allows students to recall and remember skills taught previously in the course and to build proficiency with course-level TEKS." These assessments are used to inform instruction and support early intervention.

2.1b – Materials include the definition and intended purpose for the types of instructional assessments included.

The materials include an *Assessments Teacher Edition* that offers guidance on the definition and purpose of both formative and summative assessments. The *Assessment Guide* provides examples of how to utilize various formative assessments, including quick checks, warm-ups, "Talk the Talk" activities, and skills practice assessments. Additionally, it offers implementation suggestions for the "End of Topic Assessments."

These assessments include a scoring guide that provides feedback on student performance, identifying the skills that students should practice based on their responses. The materials also include optional performance tasks, a scoring rubric, and specific implementation suggestions. The optional performance tasks can be used as either formative or summative assessments, which cover selected priority TEKS content from the course.

2.1c – Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.

The materials include an *Assessments Teacher Edition* that provides teachers with consistent and accurate scoring for each "End of Topic Assessment." The scoring guide "highlights the TEKS aligned to each question . . . identifies possible point values with a rubric for scoring . . . and recommendations for how to respond to students' performance,"ensuring consistent administration across classes."

The *Assessments Teacher Edition* includes time and pacing, the point value of each item, and directions for scoring each item accurately.

The materials include a set of optional "Performance Tasks," which can be used as either formative or summative assessments after specific modules or topics. Along with each "Performance Task," the materials provide a "rubric to be used as a guide for consistent scoring and evaluating proficiency with the skills assessed in the task."

2.1d – Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.

The materials include diagnostic assessments in the form of formative assessments, which are aligned with the TEKS and objectives of the course, unit (module), topic, or lesson. "Formative assessment as a diagnostic involves using the Prepare section of the Lesson Assignment and/or Spaced Review within the Skills Practice." Each lesson concludes with a "Prepare" task, which functions as a diagnostic assessment to facilitate spaced retrieval of previous learning and fluency relevant to the next lesson.

The materials include formative assessments throughout the lessons, such as worked examples with "Thumbs Up/Thumb Down" responses and "Who's Correct Problems" within each lesson of a unit, aligned

to the TEKS and course objectives. Another example of a formative assessment within the materials is a demonstration component within a lesson, such as the "Talk the Talk" activity, which allows teachers to identify common understandings and misunderstandings among the class and inform plans for future lessons. There are also "Questions to Support Discourse," which are used before or during instruction to gather detailed information about a student's current knowledge, skills, strengths, and learning needs.

The materials include a summative assessment scoring guide for each "End of Topic Assessment." "The scoring guide highlights the TEKS aligned to each question on the assessment." The summative "assessments are designed to cover the focus TEKS of the topic at the depth and rigor of the standard."

2.1e – Instructional assessments include TEKS-aligned items at varying levels of complexity.

The materials include assessments in the *Teacher Edition*, aligned with the TEKS, featuring varying levels of complexity, such as multiple-choice, graphing, and open-ended questions that require students to derive solutions.

The materials also contain optional "Performance Tasks" in the *Teacher Edition* tied to specific, course-aligned TEKS, which can serve as either formative or summative assessments. These tasks represent the highest order of complexity, encompassing all six levels of Bloom's Taxonomy (Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating) to complete the performance task. For example, "students will need to utilize the Problem-Solving Model Graphic Organizer when completing these real-world tasks." The model has five stages: "Notice and Wonder," "Organize and Mathematize," "Predict and Analyze," "Test and Interpret," and the final stage, "Report."

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	All criteria for guidance met.	2/2
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
—	**TOTAL**	5/5

2.2a – Instructional assessments and scoring information provide guidance for interpreting student performance.

The *Assessments Teacher Edition* includes an "Assessment Scoring Guide" that provides scoring recommendations for each topic in each module. For example, on Module 1, Topic 1 Assessment Scoring Guide, question 4 states, "The student correctly identifies the domain and range (2 points). The student correctly identifies the domain or range (1 point). The student does not correctly identify the domain and range (0 points)."

In the *Teacher Edition*, the lessons include guidance for giving formative assessments. The guidance provides facilitation notes, common misconceptions, look-for understanding items, differentiation strategies, and questions to support discourse, offering teachers assistance as they progress through each lesson. For example, the guidance may highlight a specific question that presents an opportunity to assess students' understanding of the lesson's essential content. Based on student performance on this item, it is advised that teachers provide a specific "Skill Practice Set" for additional practice.

2.2b – Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.

The *Assessments Teacher Edition* includes a "Response to Score" section for the Topic assessment. For example, in Module 1, Topic 1, the "Response to Score" provides guidance to support students with Questions 2 and 5. The guidance states, "To support students: Review formulating absolute value equations," and to "Use Skills Practice Set III.B and III.C for additional practice."

The *Teacher Edition* includes margin notes associated with tasks and activities designed to guide teachers on assessing student understanding. For example, the Module 1, Topic 2, Lesson 2 margin notes state, "This activity presents an opportunity to assess students' understanding of the essential content of the lesson. Use student responses to determine when to schedule Learning Individually days. To provide additional practice writing a system of linear inequalities, solving the system graphically, and determining possible solutions, assign Skills Practice Sets B and C for this lesson."

2.2c – Materials include tools for teachers to track student progress and growth, and tools for students to track their own progress and growth.

The "Program-Level Resources" include a "Student Data Tracker." This tool allows educators "multiple ways . . . to assess students' understanding, identifying learning trends, and support differentiation." The tool can be used to track "Topic Self-Reflection Statements," track content and language standards from each topic, and track questions and standards from "End-of-Topic Assessments."

The *Student Edition* includes a "Topic Self-Reflection" tool for students to track their progress and growth throughout a topic. This self-reflection tool allows students to rate their understanding of each objective at the beginning, middle, and end of a topic. They use a scale of 1–3, where one means the skill is new, 2 indicates developing proficiency, and 3 indicates demonstrated proficiency.

3. Supports for All Learners

Materials support educators in reaching all learners through design focused on engagement, representation, and action/expression for learner variability.

3.1 Differentiation and Scaffolds

Guidance marked with a (T) refers to teacher-facing components. Guidance with an (S) refers to student-facing components.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	3/3
3.1b	All criteria for guidance met.	2/2
3.1c	All criteria for guidance met.	2/2
—	**TOTAL**	7/7

3.1a – Materials include teacher guidance for differentiated instruction, activities, and paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.

The *Teacher Edition* includes guidance for differentiated instruction. In the materials, there are "three different types of differentiation strategies offered to ensure access for all learners: Access for All, Just in Time Support, and Challenge Opportunity." For example, in Module 1, Topic 1, Lesson 3, Activity 1, the "Access for All" guidance strategy recommends constructing "the graph as a class. Begin by asking students to locate a point on the graph that represents a baseball that is the exact target weight. Next, locate two points that are approximately one gram less or more than the target weight, and so on."

The *Teacher Edition* includes guidance for differentiated activities. For example, in Module 5, Topic 1, Lesson 2, Activity 1, the strategy offered is to "assign groups of students different values of *b* (0, 1, and -2) to explore. Have them share their results and summarize as you answer question 2 as a class." The materials state that "this differentiation strategy fosters collaboration, interdependence, and collective learning."

The *Teacher Edition* includes guidance for differentiated, paired (scaffolded) lessons, such as "Just-in-Time Support—strategies for supporting students who need extra help." For example, in Module 2, Topic 1, Lesson 1, "Talk the Talk," the "Just-in-Time Support" strategy is to "offer a checklist or flowchart outlining the steps to complete the square."

3.1b – Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)

The *Teacher Edition* includes pre-teaching or embedded supports for unfamiliar vocabulary and references within the text. For example, at the beginning of each lesson, there is a list of key terms for

that topic, which helps to connect everyday and mathematical language. The materials state, "Cognates are provided for key terms when applicable."

The *Teacher Edition* includes embedded supports in the lessons, such as "student look-fors"; these notes provide specific language, strategies, and/or errors to look and listen for as the teacher circulates and monitors students working in pairs or groups."

3.1c – Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skill.

The *Skills Practice Teacher Edition* includes guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills. As stated in the *Skills Practice Teacher Edition*, "each section includes an extension activity for students who have demonstrated proficiency in grade-level content and skills and are ready for a challenge." The guidance identifies which TEKS are associated with the extension activity. For example, Module 1, Topic 2, Set II Extension is associated with TEKS 2A.3F "Solve systems of 2 or more linear inequalities in 2 variables."

Materials provide teacher guidance for extension activities in the *Course and Implementation Guide*. Guidance in the differentiation subheading states "to support gifted and talented students or any student who is showing proficiency in a standard and is ready for a challenge and/or extension to differentiate instruction by: using embedded Differentiation Strategies labeled as 'Challenge Opportunities'; utilizing the Extension section of the Skills Practice; scaffolding up the academic glossary by encouraging students to apply the terminology across disciplines and real-world applications; and using alternative grouping strategies."

The *Teacher Edition* includes guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills. For example, to extend an activity for students who are ready to advance beyond the scope of the activity, additional challenges are provided, such as the "Challenge Opportunity" in Module 1, Topic 1, Lesson 2, Activity 2.2, which "have students create an informational classroom poster for each transformation of an absolute value function."

The *Teacher Edition* materials include enrichment activities with specific prompts for advanced questioning during discussions, such as asking students to justify their problem-solving strategies or compare different mathematical approaches, such as "'Who's Correct' activities, where students are not told who is correct." "Students have to think more deeply about what the strategies mean and whether each of the solutions makes sense." For example, in Module 5, Topic 1, Lesson 3, Activity 2, students are asked to choose between two different descriptions of the effects of a transformation and then asked to explain their reasoning for their choice.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	4/4
3.2b	All criteria for guidance met.	2/2
3.2c	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

3.2a – Materials include explicit (direct) prompts and guidance to support the teacher in modeling and explaining the concept(s) to be learned.

The *Teacher Edition* provides prompts and guidance to support teachers in modeling and explaining concepts, including facilitation notes, discussion questions, and identification of common misconceptions. For example, in Module 4, Topic 3, Lesson 1, Activity 1, the "Questions to Support Discourse" guide teachers in modeling how to extract variables from radicals. These questions address structure, the relationships between tables and graphs, absolute value functions, and the connection between roots and powers as inverse operations. In Activity 3, the "Common Misconceptions" section instructs teachers that if students believe Daniela's, Olivia's, and Koda's expressions are equivalent, they should be guided back to Activity 1 to revisit why the absolute value is necessary in the expression.

The *Teacher Edition* includes prompts and guidance to help teachers model and explain concepts, including side notes such as "Stamp the Learning" in activities with worked examples. For example, in Module 4, Topic 3, Lesson 1, Activity 2, the worked example provides the teacher with a model for rewriting radicals as powers, incorporating appropriate vocabulary and mathematical symbols. The "Stamp the Learning" note encourages teachers to prompt students to explain the concept in their own words. The activity also includes direct questions such as "What does a represent?" and "What is the justification for the equation $1 = 2a$?"

3.2b – Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

The *Teacher Edition* includes guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches. For example, in Module 3, Topic 2, Lesson 2, Activity 2, the facilitation notes recommend both direct instruction and group work. Teachers are prompted to "complete the table in Question 5 as a class," modeling the transformation effects through teacher-led instruction. The notes recommend, "Have students work with a partner or in a small group to complete Questions 1 through 5."

The *Teacher Edition* provides guidance for each activity within a lesson to support effective delivery using a variety of instructional approaches. For example, Lesson 4 of Module 2, Topic 1 includes 6 activities, each with a recommended time allocation and guidance on whether the activity should be completed

individually or with a partner. The materials also include "look-fors" to help teachers monitor student understanding. When a direct instructional approach is used—such as a worked example—the materials provide support for addressing common misconceptions. In Activity 2, for example, teachers are advised to address the misconception that a student might divide only the first term of the numerator by 2. The materials suggest comparing this process to a step used when converting a linear equation from standard form to slope-intercept form, reinforcing the correct application of mathematical procedures.

3.2c – Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

The *Teacher Edition* and the *Skills Practice Teacher Edition* support various types of practice (guided, collaborative, and independent) to promote effective implementation. For example, in Module 1, Topic 1, Lesson 1, Activity 1, "Graphs of Absolute Value Functions," the facilitation notes instruct the teacher to select eight students to represent x-values and plot coordinate pairs on a classroom coordinate plane for the functions $f(x) = x$ and $g(x) = |x|$. This creates a guided, whole-class activity where students physically model the functions. Students then work collaboratively to record coordinates in a table, graph both functions, and compare their features. Collaborative practice continues as students work in groups to complete questions 1 through 4, developing a shared understanding of the v-shaped graph and its attributes. The *Skills Practice Teacher Edition* provides opportunities for independent practice through problem sets. Each set identifies the aligned TEKS to support targeted skill development. For example, Module 1, Topic 2, Lesson 1 includes five problem sets aligned with TEKS 2A.3B.

The *Teacher Edition* includes guidance for teachers to support effective implementation. For example, each lesson within a topic includes facilitation notes that guide teachers through various types of practice and provide support for effective implementation. There is a section for each lesson that "highlights how the parts of the lesson fit within the instructional design: Engage, Develop, and Demonstrate." For instance, Module 2, Topic 1, Lesson 1, "Develop" is parsed into three activities. The first activity is recommended to last 30 minutes, in which students perform "Peer Work Analysis and Mathematical Problem Solving." The second activity is recommended to last 20–25 minutes, involving a worked example and real-world problem solving. The final activity is recommended to last 10–15 minutes, during which students complete a classification exercise by matching graphs to corresponding equations. Included in each activity are facilitation notes, common misconceptions, and differentiation strategies that support effective implementation.

The *Teacher Edition* includes recommended structures (e.g., whole-group, small-group, individual) to support effective implementation. For example, in Module 2, Topic 2, Lesson 4, the facilitation notes recommend that teachers "have students work with a partner or in a group to complete Questions 5 through 7 and then to share responses as a class."

3.3 Support for Emergent Bilingual Students

An emergent bilingual student is a student who is in the process of acquiring English and has another language as the primary language. The term emergent bilingual student replaced the term English learner in the Texas Education Code 29, Subchapter B after the September 1, 2021 update. Some instructional materials still use English language learner or English learner and these terms have been retained in direct quotations and titles.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	All criteria for guidance met.	2/2
3.3b	All criteria for guidance met.	1/1
3.3c	All criteria for guidance met.	8/8
3.3d	This guidance is not applicable to the program.	N/A
—	**TOTAL**	11/11

3.3a – Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

The *Teacher Edition* includes guidance for accommodating students at various levels of language proficiency. Emergent Bilingual (EB) Student Tips are placed for teachers at point-of-use on the mini-lesson pages. For example, in Module 4, Topic 1, Lesson 3, Activity 1, "Identifying Asymptotes," the EB Student Tip is designated "for all proficiency levels." In the next activity, two EB Student Tips are included: one primarily for students at the Pre-Production through Intermediate proficiency levels and another for those at the Intermediate and higher proficiency levels. While each EB Student Tip is designed for a specific level, the materials note that they may be used flexibly with students at any level of proficiency."

The *Teacher Edition* includes guidance for EB students, which is designed to engage students in using increasingly more academic language. The "Topic Overview" section includes cognates for newly introduced key terms, along with instructional strategies for using cognates to support language development. For example, in Module 2, Topic 1, "Overview," two of the new key terms introduced are *complex numbers*, along with its Spanish cognate *numeros complejos*, and *imaginary numbers*, along with its cognate *numeros imaginarios*. The guidance recommends that students pair up and engage in a role-play scenario in which one student pretends not to fully understand the other.

3.3b – Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.

The materials include a *Program and Implementation Guide* that provides guidance to help teachers effectively use the materials in a state-approved bilingual/ESL program. The guide includes strategies for

supporting EB students during each phase of a lesson. For example, in the "Engage" phase of a lesson, the *Program and Implementation Guide* states, "The use of graphs or other visual representations is purposefully embedded to enhance understanding and to help students make connections." It also states, "Students can create bilingual vocabulary references on these visuals to build conceptual understanding while developing English language proficiency."

The materials include a *Course and Implementation Guide* that provides guidance to help teachers effectively utilize the materials in a state-approved bilingual/ESL program. The *Course and Implementation Guide* notes that the ELPS are listed for each lesson and that teachers should consider these ELPS and decide on the instructional strategies they will use to meet them.

3.3c – Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

The *Teacher Edition* includes embedded guidance to support emergent bilingual students in developing academic vocabulary, building background knowledge, and making cross-linguistic connections through oral discourse. For example, in Module 3, Topic 1, "Overview," the guidance for introducing key terms and their cognates encourages teachers to use familiar and realistic scenarios in both languages when discussing new mathematical vocabulary. The guidance further emphasizes that "this helps students see the practical application of mathematics and helps them contextualize vocabulary and concepts that are often abstract."

The *Teacher Edition* includes embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, building background knowledge, and making cross-linguistic connections through written discourse. For example, embedded in the lessons are "Modeling Moment" notes that provide instructional guidance on when and how to utilize the "Problem-Solving Model Graphic Organizer."

3.3d – If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.

This guidance is not applicable because the program is not designed for dual language immersion (DLI) programs.

4. Depth and Coherence of Key Concepts

Materials are designed to meet the rigor of the standards while connecting concepts within and across grade levels/courses.

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	All criteria for guidance met.	1/1
—	**TOTAL**	3/3

4.1a – Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

The materials include a *Skills Practice Teacher Edition* set of problems and an *Assessments Teacher Edition* with varying levels of complexity, providing students with opportunities to practice the topic in multiple ways and demonstrate their depth of understanding. Each problem within a practice set or an assessment is aligned to the specific TEKS covered in the lesson and/or topic of a unit (module).

The *Skills Practice Teacher Edition* includes extension questions to provide opportunities for students to exhibit a deeper understanding of the TEKS at the end of each practice set, along with a set of "Spaced Practice" problems that spiral learning from previous modules and topics to maintain depth of understanding.

4.1b – Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics TEKS.

Questions and tasks progressively increase in rigor and complexity. For example, each lesson begins with questions that engage students to activate and connect prior knowledge from previous coursework. Engage-type questions predominantly represent level one (Remember) of Bloom's taxonomy. The lesson continues with a series of tasks, "Activities," that enhance rigor and develop the math concepts tied to the TEKS of the lessons within a topic to achieve grade-level proficiency. The questions in the activities typically increase in complexity and align with Bloom's taxonomy Levels 2–4 (Understand, Apply, and Analyze). Each subsequent activity advances in complexity. The lesson concludes with a "Talk the Talk" task, which correlates to Bloom's taxonomy Level 5 (Evaluate).

A core element of an activity in a lesson is a five-stage problem-solving model. Students begin by engaging with a real-world problem, using "Notice and Wonder" to gather information, identify patterns, and formulate mathematical questions. Next, they "Organize and Mathematize" the problem. The third stage prompts them to "Predict and Analyze," followed by "Test and Interpret." Finally, students "Report" their findings to a partner, small group, or the entire class.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	3/3
4.2c	All criteria for guidance met.	4/4
—	**TOTAL**	8/8

4.2a – Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

The *Teacher Edition* includes language that explicitly connects the patterns, big ideas, and relationships as students move through the modules, topics, and lessons. At the module level, it explains why that module is essential, how it connects to prior learning, and when students will use that knowledge in future education. For example, in Module 3, the *Teacher Edition* discusses that the topics in this module (analyzing cubic polynomials) build on the structure of quadratic functions (degree two polynomials) from previous modules. In addition, it states that this learning directly builds upon student experience with degree one and two polynomials from Algebra I. It then explains how each topic builds upon the others.

Within the topics themselves, lessons are explicitly linked to one another at the introduction of each topic. It includes how the topic is organized, provides a purpose ("why") for the topic, and an entry point for the topic, which links it to previous learning, connecting it to the current knowledge. For example, in Module 3, Topic 3, the *Teacher Edition* links each lesson to the next, explaining how one connects and builds upon the next. It states that this topic ("Relating Factors and Zeros") builds on the learning about cubic functions that students encountered in Algebra I by using operations with one- and two-degree polynomials. The teaching in this particular topic will build skills that will be applied in calculus to solve differential equations.

4.2b – Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.

The "Program-Level Resources" includes a "Content Organization Document" that outlines the module format for all products from grade 6 through Algebra II. For example, this document illustrates the vertical alignment of how students learn about functions in Algebra I and then apply that knowledge to deepen their understanding of functions in Algebra II.

The "Course Level Documents" includes a "Family Guide" document that breaks down each module and topic with answers to the questions "Where have we been? Where are we going?" and "Where are we now?" in ways that parents can follow along with the lessons their child is learning. For example, each

unit (module) includes sample questions, discussion points for students, and examples of how the TEKS can be observed in the real world.

4.2c – Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

The *Teacher Edition* includes a *Course and Implementation Guide* with a section called "Connecting Content and Practice." This section includes details on how to use the "Getting Started" section of each lesson to access students' prior knowledge and real-world experiences. It provides specific guidance to pay attention to the strategies that students use, allowing instructors to observe their thought process and make connections that will benefit students as they progress through the lesson.

In the *Teacher Edition*, each module includes an overview explaining what students learned in previous modules and how they will apply that knowledge in the next one. For example, in Module 4, Topic 1, the overview at the beginning of the topic describes how students will broaden their understanding of transformations to include rational functions and how these transformations influence horizontal and vertical asymptotes. It also reminds teachers of the connection to grade 6 topics and how students have expanded their learning since then.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	4/4
4.3b	All criteria for guidance met.	4/4
—	**TOTAL**	8/8

4.3a – Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.

The *Skills Practice Student Edition* includes spaced retrieval exercises that reinforce previously learned concepts. For example, in Module 4, Topic 1, "Rational Functions" includes practice on previously learned skills and concepts such as domain and range, asymptotes, graphing, zeros, and transformations, which are revisited within the context of rational functions.

The materials include *Skills Practice Student Edition* practice sets that provide targeted skill practice, extension problems, spaced practice, and mixed-topic review. These sets reinforce recently learned content as well as prior skills. For example, in Module 1, Topic 2, Skills Practice Set IV, students graph and represent inverses of functions as a table of values for an absolute value function. This demonstrates the student's knowledge of a previous practice set in Topic 1, where they graphed transformations of absolute value functions and equations.

4.3b – Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

The materials include interleaved practice opportunities throughout the modules and lessons to deepen their understanding of the topics, thereby increasing their chances of retention. For example, in the Module 5, Topic 2, "End of Topic Assessment," students are given multiple types of assessment questions to represent and solve logarithmic and exponential equations. These questions require students to apply the knowledge they gained in Module 2, Topic 2 on the applications of quadratics to help them solve logarithmic and exponential equations and determine the reasonability of their responses.

The *Skills Practice Student Edition* includes problems that correlate with specific modules and topics with guidance on what sets to use after specified lessons. These practice sets provide students with the opportunity to reinforce the skills and concepts they have just learned, as well as skills and concepts from previous practice sets and prior grade-level knowledge. For example, in Module 2, Topic 2, Skills Practice Set II.C, students write and solve a system of equations and explain whether the solution(s) to the system make sense in the context of the problem situation. These problems enhance students' problem-solving abilities and promote flexible thinking as students learn to switch between different types of issues and strategies that they have learned during the topic.

5. Balance of Conceptual and Procedural Understanding

Materials are designed to balance conceptual understanding, procedural skills, and fluency.

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	All criteria for guidance met.	1/1
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	5/5

5.1a – Questions and tasks require students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations.

The *Teacher Edition* includes questions and tasks that prompt students to interpret, analyze, and evaluate models and representations of mathematical concepts and situations. For example, Module 5, Topic 2, Lesson 1, Activity 1 states, "In this activity, students consider given terms to create true logarithmic equations. They analyze a Worked Example that demonstrates the triangle of power. Students also create logarithmic expressions equivalent to a given expression." Analytical questions such as, "Why is the base always a positive number?," "Why are there not any restrictions on the exponent?," and "Why is the triangle useful for understanding logarithms and exponents?," are asked of students during the activity.

The *Skills Practice Student Edition* provides students with tasks to interpret, analyze, and evaluate models and representations of mathematical concepts and situations. For example, in Module 5, Topic 1, Lesson 2, "Spaced Practice," students are presented with a tabular model illustrating a house's value over time. Students are asked to interpret the model to determine if the value of the house represents an example of exponential decay, exponential growth, or neither. After determining the relationship, students analyze the model to write a function that represents the value of the house, V(n), as a function of the number of years after purchase. To evaluate the process, students are asked to explain their reasoning.

5.1b – Questions and tasks require students to create models to represent mathematical situations.

The *Teacher Edition* includes questions and tasks that prompt students to create models of mathematical situations. For example, in Module 1, Topic 1, Lesson 3, Activity 3.1, Question 1, students are tasked to "sketch a graph that models the relationship between a manufactured baseball's weight, x, and its distance from the target weight, y." Prompting questions are provided during the task, such as "Why does the point of the target weight lie on the x-axis?" and "Why does it make sense to subtract 145.045 (the target weight) from the baseball's weight before applying the absolute value function?"

The *Skills Practice Student Edition* includes questions and tasks that require students to create models representing mathematical situations. For example, in Module 1, Topic 1, Set III.C, Questions 1–6,

students are tasked with writing and graphing absolute value functions that model real-world problems, such as modeling the specifications of necklaces manufactured by a jewelry company or modeling the difference between the weight of a bag of chips and the specifications that require the weight to be within a certain tolerance level.

5.1c – Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

The *Teacher Edition* provides questions and opportunities for students to apply conceptual understanding to new problem situations and contexts, such as "Thumbs Up/Thumbs Down" problems. "'Thumbs Up' problems allow students the opportunity to analyze viable methods and problem-solving strategies." They "present questions to help students think more in-depth about the various strategies and analyze correct responses." "'Thumbs Down' problems, showing incorrect responses, allow students to identify and explain errors and make corrections." This is done by showing students a worked example of the problem at hand and asking them to give a thumbs up or down on whether it is solved correctly or incorrectly. This provides an opportunity for students to apply conceptual understanding to this new problem within the context of it being solved for them.

The *Student Edition* includes tasks for students to apply their conceptual understanding to new problem situations and contexts. One example of this is in Module 4, Topic 3, Lesson 1, in the "Talk the Talk" section. Students are asked to evaluate student work and determine if it is correct or not. They are then asked to fix any errors that they find. This opportunity at the end of the lesson allows students to apply their conceptual understanding of radical expressions to new work that may or may not be correct. This task requires students to truly understand how radical expressions work and how to simplify them accurately.

The *Assessments Teacher Edition* includes "Performance Tasks" that give students opportunities to apply their understanding to new problems and situations. For example, in Performance Task 3, "students are given a formula for the body surface area of a person based on their height and weight that doctors sometimes use to prescribe the correct dosage of medicine." They are asked to write two new functions of body surface area, one for a specific height and another for a particular weight. Then, they need to use their understanding of prescription dosage in milligrams per body mass to calculate the appropriate dosage for a new patient with a given height and weight. Students use their knowledge of radical functions to model and solve real-world problems.

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	All criteria for guidance met.	2/2
5.2b	All criteria for guidance met.	3/3
5.2c	All criteria for guidance met.	3/3
5.2d	All criteria for guidance met.	1/1
—	**TOTAL**	9/9

5.2a – Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.

The *Skills Practice Student Edition* includes tasks to build automaticity. For example, in Module 4, Topic 3, Set III.B, students work through a step-by-step process to determine the domain and range from a table. The task begins by identifying the family of functions represented, then guides students in using graphing technology to write an equation that models the data. Students are then prompted to write the domain and range using inequalities and explain their reasoning in writing.

The *Skills Practice Student Edition* includes activities designed to improve fluency. For example, in Module 5, Topic 2, Sets II.A and B, students receive repeated practice with tasks that prompt students to "solve each exponential equation."

5.2b – Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.

The *Student Edition* provides opportunities for students to practice the application of efficient mathematical procedures within the lesson and/or throughout a unit. For example, in Module 4, Topic 3, Lesson 1, students learn to efficiently rewrite radical expressions by extracting roots and performing operations. They then practice these skills to perform operations on radical expressions.

The *Student Edition* provides opportunities for students to apply flexible mathematical procedures within lessons and across units. For example, in Module 1, Topic 2, Lesson 1, "Solving Systems of Equations," students practice using both substitution and Gaussian elimination to solve real-world problems.

The *Student Edition* provides opportunities for students to practice the application of accurate mathematical procedures within the lesson and/or throughout a unit. For example, in Module 2, Topic 1, Lesson 4, "Imaginary and Complex Numbers," students practice the accurate application of the Fundamental Theorem of Algebra to understand that a quadratic equation can have two distinct real solutions, two equal real solutions, or two imaginary solutions.

5.2c – Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.

The *Teacher Edition* provides students with opportunities to evaluate procedures, processes, and solutions for efficiency within the lesson and throughout a unit. At the start of the course, students are introduced to a five-step "Problem-Solving Model Graphic Organizer," which serves as a tool to support problem-solving throughout lessons and activities. One of the steps, "Organize and Mathematize," encourages students to devise a plan by considering questions such as "How can I efficiently solve this problem?" and "How can I organize, record, and communicate my mathematics?" Another step, "Test and Interpret," "promotes flexibility by prompting students to reflect on their work and ask questions such as "Can I solve the problem using a different strategy?"

The *Teacher Edition* and *Student Edition* provide students with opportunities to evaluate procedures, processes, and solutions for accuracy within a lesson and throughout a unit. For example, in Module 5, Topic 2, Lesson 1, students evaluate the strategies and solutions presented in worked examples and problem sets. In the first activity, students are prompted to explain their own strategies. In the second activity, they analyze the approaches of Andrew and Alejandro—one using a number line and one without—to determine the effectiveness of each method. Students are later asked to compare Trung and Eduardo's reasoning in evaluating the value of log(58).

5.2d – Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

The *Teacher Edition* includes embedded supports to guide teachers in helping students develop increasingly efficient approaches. For example, in Module 4, Topic 1, Lesson 2, "Transformations of Rational Functions," the lesson is structured to build toward more efficient strategies for transforming rational functions. Students begin by examining how the a, c, and d values affect the graph of a rational function through a matching activity that pairs equations with corresponding graphs. They then transition to a more efficient approach by using graphing technology to explore transformations. Embedded teacher supports include recommendations for chunking the activity, identifying "look-fors," addressing common misconceptions, and applying differentiation strategies to support all learners.

The *Teacher Edition* includes embedded supports for teachers to guide students toward increasingly efficient approaches. For example, in Module 4, Topic 1, Lesson 3, "Exploring Asymptotes," the first approach is that "students will use a graphing calculator to explore rational functions of the form $g(x) = 1/(x-c)$ for a constant value c." The lesson then advances to a more efficient approach where "students determine the asymptotes, domain, and range of several rational functions without using graphing technology." Ideally by the end of the lesson, "given a graph, asymptotes, the domain and range, or a table of values, students write an equation to fit the information." The embedded supports for teachers include ideas for chunking the activity and offer guidance throughout the lesson on "look-fors" and how to approach specific parts of the activity.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	All criteria for guidance met.	2/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	6/6
—	**TOTAL**	11/11

5.3a – Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.

The *Program and Implementation Guide* explicitly states how the conceptual emphasis of the TEKS is addressed. It states explicitly, "To achieve a deep understanding, progression in instruction starts with building understanding with concrete objects or movements, then moves to representing concepts visually, and finally to abstraction by modeling with symbols." For example, in Module 1, Topic 2, Lesson 1, "Solving Systems of Equations," which addresses TEKS 2A.3A and 2A.3B, students build understanding by reviewing what they know about systems of equations from Algebra I. They graph and solve a system of two linear equations. Next, they move to representing the concept by formulating a system of equations for a problem situation that requires three linear equations in three variables. In the final step, moving to symbols, "students analyze solution methods and solve systems of three linear equations in three variables using substitution, Gaussian elimination, and technology with matrices."

The *Course and Implementation Guide* explicitly states how the procedural emphasis of the TEKS is addressed. It states, "Once students have ample opportunities to build [conceptual] understanding, procedural problems and exercises are presented to increase computational fluency."

5.3b – Questions and tasks include the use of concrete models and manipulatives, pictorial representations (figures/drawings), and abstract representations, as required by the TEKS.

The *Teacher Edition* provides questions and tasks that include the use of concrete models and manipulatives, as required by the TEKS. For example, in Module 2, Topic 1, Lesson 1, "Forms of Quadratic Functions," students are tasked to use algebra tiles to review the process for completing the square. One of the questions included in the task is: "When you split the *x*-tiles into two groups, what does each group represent?"

The *Teacher Edition* provides questions and tasks that include the use of pictorial representations (figures/drawings), as required by the TEKS. For example, in Module 2, Topic 2, Lesson 2, "Systems of Linear and Quadratic Equations," students are asked to sketch a pictorial representation of a scenario involving a quadratic and a linear equation. "Students describe the shape and characteristics of each

equation and reason about whether the two graphs intersect. One of the questions included in the task is: "Is there more than one way to sketch the graphs of the two functions with your limited information?"

The *Teacher Edition* provides questions and tasks that include the use of abstract representations, as required by the TEKS. For example, in Module 1, Topic 2, Lesson 4, "Inverses of Linear Functions," students are presented with a worked example that demonstrates how to determine the inverse of a linear function algebraically. Students use this example to determine the inverse of another function using an abstract representation of the real-world problem. One of the questions included in the task is: "What are the independent and dependent quantities?"

5.3c – Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS.

The *Teacher Edition* includes support for students in connecting concrete and representational models to abstract concepts. For example, in Module 2, Topic 1, Lesson 1, Activity 3, "Modeling a Quadratic Graph," students are asked to match generic graphs to a set of symbolic equations that could model the graph. Embedded teacher supports during this activity address common misconceptions, such as "students may try to eliminate all but one equation, or attempt to choose the single most appropriate equation," and remind students that "each graph can be described by more than one given equation." Another support is to "suggest students use graphing technology to verify their choices."

The *Teacher Edition* includes support for students in creating concrete and representational models to abstract concepts. For example, in Module 3, Topic 2, Lesson 2, "Transformations of Cubic Functions," "students review the effects of transformations on a function, and they match function representations with corresponding coordinate pairs. As a differentiation strategy, teachers are encouraged to "have students create informational classroom posters to demonstrate each function form." Support in creating the posters is to remind students that "each poster should include the function form, the equation information, a description of the transformation of the graph, and an example."

The *Teacher Edition* includes support for students in defining and explaining concrete and representational models to abstract concepts. For example, in Module 2, Topic 2, Lesson 4, Activity 3, "Applications of Parabolas," students use the attributes of parabolas to solve real-world problems. Teacher guidance includes chunking the activity and providing students with the "Problem-Solving Model Graphic Organizer," which "helps students organize and communicate their mathematics." In this activity, they use it collaboratively to help define and explain each of the scenarios presented.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	3/3
5.4b	All criteria for guidance met.	1/1
5.4c	All criteria for guidance met.	6/6
—	**TOTAL**	10/10

5.4a – Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and other language development strategies.

The *Teacher Edition* provides opportunities for students to develop their academic mathematical language using visuals. For example, in Module 2, Topic 1, Lesson 3, "Solving Quadratic Equations," the EB Student Tip for Pre-Production/Beginning levels suggests using "simple gestures for each method," such as "hands separating for factoring, drawing a square for completing the square, writing an *x* with fingers for the quadratic formula, and drawing a U-shape in the air for graphing. Have students use these gestures to indicate which method they are discussing."

The *Teacher Edition* provides opportunities for students to develop their academic mathematical language using manipulatives, such as giving sentence frames with accompanying word banks. For example, in Module 2, Topic 1, Lesson 3, "Solving Quadratic Equations," the EB Student Tip for Intermediate/High Intermediate, the sentence frame is "The ____ method is more efficient when ____," and the word bank is "factoring, completing the square, quadratic formula, graphing, equation, and perfect square."

The *Student Edition* provides opportunities for students to develop their academic mathematical language using language development strategies. For example, "a course-specific "Math Glossary" is available for students to utilize and reference during their learning." The glossary contains definitions, examples, and visuals of key terms. The strategy recommendation in the *Course and Implementation Guide* is to "encourage students to claim ownership of their learning by using the 'Math Glossary' as a tool they interact with and reference consistently during instructional time and while working on assignments."

5.4b – Materials include embedded teacher guidance to scaffold and support students' development and use of academic mathematical vocabulary in context.

The *Program and Implementation Guide* includes embedded teacher guidance to scaffold and support students' development and use of academic vocabulary in context. It recommends scaffolding activities that promote cross-disciplinary and real-world applications of academic terminology through the use of the "Math Glossary." For example, it suggests opening discourse with prompts such as "How would this vocabulary integrate in the real-world and in common language?" and "What careers would use this language regularly and why might they use it regularly?" The guide also recommends encouraging

students to make real-world connections to the vocabulary as it will help them apply the information they are learning to other disciplines.

The *Teacher Edition* includes embedded teacher guidance to scaffold and support students' development and use of academic vocabulary in context. For example, in Module 1, Topic 1, Lesson 3, Activity 3, "Absolute Value Inequalities," the guidance recommends having a student read the "Essential Question" aloud, collaborate with a partner or group to complete Questions 1–4, and then share responses as a class. Teachers are also encouraged to prompt students to restate or explain key concepts in their own words to reinforce understanding and promote the use of academic language.

5.4c – Materials include embedded teacher guidance to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

The *Teacher Edition* includes embedded teacher guidance to support the application of appropriate mathematical language, including vocabulary, syntax, and discourse, thereby facilitating mathematical conversations. For example, in Module 1, Topic 2, Lesson 2, Activity 3, "Formulating Systems with a Linear and a Quadratic Equation," the guidance recommends dividing students into expert groups, with each group collaboratively working on one of three problems. Students are asked to analyze the problem, formulate the system of equations, solve it, and prepare a brief presentation that includes the problem setup, solution process, and an evaluation of the reasonableness of the solution. This strategy fosters collaboration, interdependence, and collective learning.

The *Teacher Edition* includes embedded guidance to help teachers encourage the use of proper mathematical language during conversations and to create opportunities for students to hear, refine, and use math language with peers, helping them build their math language toolkit over time. For example, in Module 1, Topic 1, Lesson 3, Activity 2, "Solving Absolute Value Equations," the guidance recommends having a student read the introduction aloud, which includes the definition of absolute value. Teachers are then prompted to analyze the worked example and complete questions 1 and 2 as a class. Further guidance highlights this moment as an opportunity for explicit instruction, encouraging teachers to interact with the content as a class and prompt students to restate or explain the information in their own words.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	All criteria for guidance met.	2/2
5.5c	All criteria for guidance met.	2/2
5.5d	All criteria for guidance met.	1/1
—	**TOTAL**	6/6

5.5a – TEKS process standards are integrated appropriately into the materials.

The *Course and Implementation Guide* explains how the TEKS process standards are integrated appropriately into the materials. For example, it states, "the instructional materials embody the TEKS mathematical process standards as they encourage experimentation, creativity, and various solution strategies. These mathematical processes empower students to persevere when presented with complex real-world problems."

The TEKS mathematical process standards are properly incorporated into the materials. The "Scope and Sequence" document lists all seven of the TEKS mathematical process standards—2A.1A, 2A.1B, 2A.1C, 2A.1D, 2A.1E, 2A.1F, and 2A.1G—as being included in the materials.

5.5b – Materials include a description of how TEKS process standards are incorporated and connected throughout the course.

The *Teacher Edition* includes a description of how the TEKS mathematical process standards are incorporated throughout the course. The "Problem-Solving Model" utilized throughout the course is outlined in the *Course and Implementation Guide* under the subheading "Facilitating Student Learning." The *Course and Implementation Guide* states, "Productive mathematical thinkers are problem solvers. These instructional materials include a problem-solving model to help students develop proficiency with the TEKS mathematical process standards and to make sense of the problems they must solve." The guidance recommends that as students engage with the model, teachers prompt them to use the provided questions to guide their thinking and spark peer discussion. When appropriate, teachers are advised to provide students with the "Problem-Solving Model Graphic Organizer" to support their problem-solving process.

The *Teacher Edition* includes a "Pacing Guide" with a description of the TEKS mathematical process standards, 2A.1A through 2A.1G, embedded throughout the course. The overview states, "Each topic is written with the goal of creating mathematical thinkers who are active participants in class discourse, so elements of the TEKS mathematical process standards should be evident in all lessons." It further explains that students are expected to "make sense of problems and work toward solutions, reason

using concrete and abstract ideas, and communicate their thinking while providing a critical ear to the thinking of others."

5.5c – Materials include a description for each unit of how TEKS process standards are incorporated and connected throughout the unit.

The *Teacher Edition* includes the specific TEKS process standards and description of how they are incorporated and connected throughout the unit (module). For example, in Module 2, Topic 1 Overview, "Quadratic Functions and Equations," four of the seven process standards are addressed. "Students use reasoning to make sense of quantities and their relationships in real-world situations (TEKS 2A.1A). They express these relationships using graphs, tables, and expressions to create coherent and equivalent representations (TEKS 2A.1D). Students make use of the structure of quadratic functions as they rewrite them in different forms and identify key attributes in each form (TEKS 2A.1F). When analyzing representations of functions and solution strategies, students justify their conclusions, communicate their reasoning, and evaluate the arguments of others (TEKS 2A.1G)."

The *Teacher Edition* includes a "Pacing Guide" that lists the TEKS mathematical process standards, 2A.1A through 2A.1G, and describes how they are integrated throughout each unit. The unit (module) overview notes that "each topic is written with the goal of creating mathematical thinkers who are active participants in class discourse, so elements of the TEKS mathematical process standards should be evident in all lessons." It further explains that students are expected to make sense of problems and work toward solutions, reason using both concrete and abstract ideas, and communicate their thinking while critically evaluating the reasoning of others.

5.5d – Materials include an overview of the TEKS process standards incorporated into each lesson.

The *Algebra II Course and Implementation Guide* includes a section called "TEKS Mathematical Process Standards Notes." This section states, "Each note references a particular TEKS mathematical process standard. The first instance of a TEKS mathematical process standard is highlighted in a lesson and encourages you to introduce the standard to your students. After the first time a process standard is highlighted, additional notes help you assess whether students are demonstrating proficiency with the process standards."

The *Teacher Edition* includes an overview of the TEKS mathematical process standards incorporated into each lesson. For example, in Module 3, Topic 1, Lesson 3, the overview lists three of the seven: 2A.1A, 2A.1B, and 2A.1G, along with a description of the student expectation to meet the specific standards incorporated in the lesson.

6. Productive Struggle

Materials support students in applying disciplinary practices to productive problem-solving, including explaining and revising their thinking.

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	6/6
6.1c	All criteria for guidance met.	3/3
—	**TOTAL**	12/12

6.1a – Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.

The *Student Edition* provides opportunities for students to think mathematically through embedded "Ask Yourself" prompts included throughout the lessons. For example, in Module 2, Topic 2, Lesson 4, Question 5, the "Ask Yourself" text bubble states, "Is the value of *p* positive or negative?"

The materials provide opportunities for students to persevere through solving problems. The *Course and Implementation Guide* recommends using the "Self-Monitoring Strategies" callouts in the *Teacher Edition*, which are strategically placed throughout the text to help teachers recognize students demonstrating perseverance to encourage others to apply similar strategies. These callouts prompt educators to look for evidence of self-motivation, self-discipline, and self-awareness as students work through challenging problems.

The *Student Edition* provides opportunities for students to make sense of mathematics. For example, "Who's Correct" problem types are embedded throughout the lessons. In these tasks, students are not told which character is correct; instead, they must analyze the reasoning presented, evaluate the validity of each strategy, and determine which solution makes mathematical sense.

6.1b – Materials support students in understanding, explaining, and justifying that there can be multiple ways to represent and solve problems and complete tasks.

The *Teacher Edition* supports students in understanding that there can be multiple ways to represent and solve problems and complete tasks. For example, in Module 1, Topic 2, Lesson 2, "Optimization," students write a system of inequalities to represent the constraints of a problem situation, graph the system on a coordinate plane, and shade the region representing the solution set. Initially, students explore the optimal solution algebraically and graphically through trial and error. They are then introduced to linear programming as a formal method for determining the optimal solution. Teacher guidance includes probing questions such as "Why do you think the vertices are the only solutions that need to be checked

for the optimal solution?," plus structure-focused questions like "What type of value are you looking for when substituting the coordinates of the vertices into the equation?" and "How do you know?"

The *Teacher Edition* supports students in explaining that there can be multiple ways to represent and solve problems and complete tasks. For example, in Module 2, Topic 2, Lesson 1, Activity 1, "Solving Quadratic Inequalities," students analyze a worked example that demonstrates how to solve a quadratic inequality algebraically first to find the roots and then with test values on a number line to identify the appropriate intervals. Students are then asked to graph the inequality and explain how the graph supports the solution set. Teacher guidance includes grouping students and posing leading questions to facilitate discussion, such as "Which axis on the graph relates to the number line used in the Worked Example?"

The materials support students in justifying that there can be multiple ways to represent and solve problems and complete tasks. For example, the *Course and Implementation Guide* provides guidance for discussing problem-solving with students. It suggests reminding students that "It is not just about answer getting. The process is important. Making mistakes is a critical part of learning, so take risks. There is often more than one way to solve a problem. Activities may include real-world problems, sorting activities, worked examples, or analyzing sample student work. Be prepared to share your solutions and methods with your classmates."

6.1c – Materials are designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and teachers.

Materials are designed to require students to make sense of mathematics through multiple opportunities for students to engage in math, write about math, and discuss math with peers and teachers. For example, in the *Teacher Edition*, teachers are prompted to provide students with the "Problem-Solving Model Graphic Organizer," which supports students in analyzing and articulating their problem-solving process. In Module 5, Topic 2, Lesson 3, Activity 3.2, students work with a partner to complete the organizer while simplifying logarithms to determine how long it will take for two milligrams of medicine to metabolize. The structured model guides students through solving the problem and discussing strategies with peers. As a final step, students write a report summarizing their approach, reinforcing mathematical understanding through written communication.

Materials are designed to require students to make sense of mathematics through multiple opportunities for students to engage in math, write about math, and discuss math with peers and teachers. For example, in Module 4, Topic 1, Lesson 4, students conclude a "Talk the Talk" activity focused on operations with rational expressions. Students determine the sum, difference, product, and quotient of rational expressions and describe the similarities and differences in their methods. The *Teacher Edition* facilitation notes prompt teachers to have students work with a partner or group and then share their

responses as a class where they describe the similarities and differences in their methods when calculating the results.

Materials are designed to require students to make sense of mathematics through multiple opportunities for students to engage in math, write about math, and discuss math with peers and teachers. For example, in Module 4, Topic 1, Lesson 5, students are given multiple opportunities to write and talk about solving rational equations, the methods they use for solving, and the meaning of their solutions in context. The *Teacher Edition* includes facilitation notes with questions to support discourse, such as "Explain the first step in Amir's equation-solving process" and "Show how all the methods lead to the same equation and results."

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	6/6
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	10/10

6.2a – Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.

The *Teacher Edition* supports teachers in guiding students to share and reflect their problem-solving approaches, including explanations. For example, in the "Facilitation Notes" for Module 4, Topic 1, Lesson 6, the "Talk the Talk" task at the end of the lesson, prompts teachers to "Have students work with a partner or in a group to complete Questions 1 through 3. Share responses as a class." In this activity, students write a rational expression to solve a real-world problem. They analyze an incorrect equation for the problem situation, then write and solve the correct equation and determine the reasonableness of the solution. Teacher guidance includes a variety of question types—probing, reflecting, and justifying—to support discourse and encourage students to restate or explain their reasoning. For example, teachers are prompted to ask, "Does it make sense that Destiny would take three hours to complete the job by herself?" and "Explain your thinking."

The *Teacher Edition* supports teachers in guiding students to share and reflect on their problem-solving approaches, including arguments and justifications. For example, in Module 4, Topic 2, Lesson 3, "Transformations of Radical Functions," "Talk the Talk", includes margin notes that suggest making this activity a "Modeling Moment" by grouping students to complete the activity and providing them with the "Problem-Solving Model Graphic Organizer." The organizer serves as a tool to help students "make sense of the problems they must solve." Additional guidance recommends that teachers prompt collaboration by using the provided questions to spark discussion and support students in articulating their reasoning.

6.2b – Materials include prompts and guidance to support teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

The *Teacher Edition* offers guidance to support teachers in providing explanatory feedback based on student responses and anticipated misconceptions. For example, in Module 1, Topic 1, Lesson 3, Activity 2, "Solving Absolute Value Equations," a facilitation note addresses a common misconception: "Students may overgeneralize and believe that any equation with a negative value opposite the absolute value expression has no solution." The guidance clarifies that "this is true only when the absolute value expression is isolated on one side of the equation." It recommends "use the equations $|x| - 14 = -10$ and $|x| + 14 = 10$ to clarify this common misconception."

The *Teacher Edition* offers prompts to support teachers in providing explanatory feedback based on student responses and anticipated misconceptions. For example, in Module 1, Topic 2, Lesson 1, "Getting Started," students use a system of two linear equations to represent a given context. The teacher's guidance under "Common Misconceptions" notes that "a common response is that the point of intersection represents when both plans cost the same amount." It further suggests, "Have students restate their responses taking both variables into account, so that they can acknowledge that both plans cost the same amount for the same number of miles." One of the provided prompts for feedback is "Why does it make sense that the point of intersection is the solution to the system of equations?"